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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,886	04/05/2004	Christian E. Gruber	IVGN 178.1 CON	3859

65482 7590 04/27/2007  
INVITROGEN CORPORATION  
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MINNEAPOLIS, MN 55402

EXAMINER
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TUNG, JOYCE

ART UNIT	PAPER NUMBER
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1637

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/816,886

Applicant(s)

GRUBER ET AL.

Examiner

Joyce Tung

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 54-123.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 54-123 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

The response filed 3/15/07 to the Office action has been entered. Claims 54-123 are pending.

The finality of the Office action mailed 11/28/06 is withdrawn in light of the new ground of rejection.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 54-123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huo (5,922,535, issued Jul. 13, 1999) in view of Chenchik et al. (5,962,271, issued Oct. 5, 1999).

Huo et al. includes the teaching of standard cDNA synthesis from mRNA (see column 5, lines 8-20). Huo et al. also disclose the advantageous use of a biotinylated primer in cDNA synthesis to facilitate attachment of synthesized cDNA to solid supports (column 5, lines 21-27;

Art Unit: 1637

column 7, lines 51-60; column 11, lines 31-37; column 12, lines 9-24). Huo et al. also disclose the use a biotinylated primer comprising a rare restriction site, which primer sequence may be cleaved after cDNA synthesis with a restriction enzyme unlikely to cleave within any synthesized cDNA (see column 13, lines 17-46).

While Huo et al. disclose the use of a biotinylated primer-adaptor comprising a rare restriction site, said primer-adaptor is used in a different manner than in the claimed methods; in Huo et al., heteroduplex cDNAs are produced which are cleaved at points of variation. In other words, Huo et al. covers steps (a)-(c) of claim 54, for example, but not steps (d) and (e).

Chenchik et al. disclose the use of cDNA synthesis primers comprising rare restriction enzyme cutting sites to facilitate cloning of full-length synthesized cDNAs into cloning vectors (see column 9, lines 17-25 and column 11, lines 40-45).

One of ordinary skill in the art would have been motivated to use a biotinylated adapter-primer comprising a rare restriction enzyme cutting site in conventional cDNA synthesis and subsequent cloning because Huo et al. disclosed the benefit of biotinylated cDNA synthesis primers in attaching cDNA to a solid support, and Chenchik et al. disclosed the benefit of cDNA synthesis primers having rare restriction sites in subsequent cloning of full-length cDNA into vectors. In other words, the skilled artisan considering the references as a whole would have combined the noted teachings to achieve the expected combined benefits of biotinylated primers (Huo et al.) and primers containing rare restriction sites (Chenchik et al.) in conventional cDNA synthesis. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to carry out the claimed methods.

Art Unit: 1637

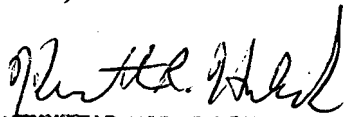
### Summary

3. No claims are allowed.
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is (571) 272-0790. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joyce Tung *JT*  
April, 17, 2007

  
KENNETH R. HORLICK, PH.D.  
PRIMARY EXAMINER

4/26/07